OVERVIEW

The Transit Service and Management Innovation Program (TSAM) of the Federal Transit Administration (FTA) responds to key vision strategies in the FTA Strategic Plan. TSAM is oriented toward resolving day-to-day concerns of transit managers by developing and promoting improved practices. TSAM links technological developments, sponsored by FTA, with practical applications, to help foster their adoption.

TSAM complements research on operational and management problems performed by states, local transit systems, and the Transit Cooperative Research Program. TSAM focuses on higher risk, innovative approaches that can involve multi-year projects. Because research funding is limited, TSAM concentrates on projects with high potential payoffs.

Promotion of effective management approaches is a key element of the program. In addition to research and dissemination of information, TSAM supports technical assistance, courses, workshops and user oriented programs.

RESEARCH APPROACH

TSAM addresses critical areas of transit operations and management through the following activities.

- ***Case Study Evaluations*** - This research examines innovations implemented by localities without the support of Federal research funding. These innovations were developed to meet local needs but are likely to apply to other areas.

- ***Empirical Demonstrations*** - Carefully designed demonstrations test promising new ideas that have not been applied widely or evaluated. The demonstrations include strong data collection efforts to insure proper evaluation.

- ***Technical Evaluations*** - These assess the success of innovations and their potential applications to other areas. FTA evaluations typically are paired with demonstrations. Evaluations of independent projects with before/after data are also conducted.

- ***Research Studies*** - These studies foster new ideas, practices, and technologies. They include feasibility studies for testing new ideas through formal demonstrations. They also include cross-cutting studies that compare findings from different cities or applications.

- ***Technical Assistance, Outreach, and Information Sharing*** - These activities are intended to share the knowledge and information generated through demonstrations, evaluations and research studies.

TSAM PROJECT EXAMPLES

TRANSIT FARE INNOVATIONS

FTA is a catalyst for innovation in transit pricing. Through its TSAM program, FTA supports the development of techniques for fare integration. Current and recent efforts include the following:

- ***WMATA Metropool "Metrochek" Program*** - The Washington Metropolitan Area Transit Authority (WMATA) has received an FTA grant to purchase farecard readers and decoders. This is intended to facilitate increased participation in the National Transit Benefit Program, which allows employers to provide tax-free subsidy to their employees. Metrochek farecards can be used on Metrorail, Metrobus, and 70 other transit providers. WMATA provides the farecards to the employers and acts as the broker for farecards received from participating transit providers. FTA has funded an evaluation of the "Metrochek."

- ***TransLink and MetroCard*** - Regional agencies in San Francisco and Los Angeles areas are leading demonstrations of new fare payment cards that can be used on multiple transit systems. In San Francisco, the farecard technology used in the BART rail system is extended to local bus systems through the TransLink program. In Los Angeles, the stored value MetroCard can be used on multiple transit systems. FTA is assisting these agencies by monitoring their activities and sharing results with the transit industry.

- ***Eco Pass*** - The Denver Regional Transportation District Eco Pass Program allows employers to purchase annual transit passes. The passes are a tax-free benefit to the employees and an eligible business expense for the employer. FTA sponsored case study documentation and evaluation of the project.

- ***Deep Discounts*** - The deep discount is a combination of higher cash fares and deeply discounted tickets or tokens which can raise transit revenues and ridership simultaneously. FTA has provided technical assistance to transit systems interested in implementing this concept. Case study evaluations of deep discount experiences have been prepared.

SERVICE INNOVATIONS

The FTA also supports the development of innovative services. Three examples follow:

- ***Charter Bus Service Demonstrations*** - Responding to ISTEA, demonstrations are being conducted at eight sites. Public transit operators at the sites are permitted to provide for the unmet charter service needs of government, civic, charitable and other community groups. The overall objective of the demonstration is to develop new charter bus regulations.

- ***Team Transit*** - FTA is assisting the Metropolitan Transit Commission (MTC) in developing their Team Transit Program. The 1993 FTA grant is to assist in effecting solutions to mass transportation mobility and congestion problems in the urban and suburban areas of Minneapolis and St. Paul, MN. Team Transit provides a national model for addressing congestion problems that adversely affect transit and ridesharing vehicles in urban/suburban areas across the country.

- ***Independent Transportation Network (ITN)*** - The ITN program is designed to provide a financially self-sufficient transportation service to the elderly in areas where public transportation is inadequate. ITN demonstrations will provide 24-hour on-demand transportation service in standard sedans to seniors who can no longer drive their own cars, or wish to reduce their driving. This will enable seniors to fulfill their transportation needs with independence and safety. The National Traffic Safety Administration is a partner with FTA in this program.

MOBILITY MANAGER

The objective of the Mobility Manager demonstrations is to identify new roles for transit authorities as mobility managers to encourage development of innovative transit services. These projects examine the roles of transit industry leaders and transit operators as providers of a broad range of transportation services.

LIVABLE COMMUNITY SERVICES

The FTA implemented this initiative to strengthen the link with communities by demonstrating transit contributions toward making communities more livable through promotion of community-oriented transit.

- ***Bridges to Work (BTW) Demonstration*** - The Department of Housing and Urban Development (HUD) and FTA are pursuing research to identify resources to improve the quality of life for low-income inner city residents. Bridges to Work (BTW) links low-income, inner-city neighborhoods to metropolitan-wide opportunities. Along with a consortium of private foundations, HUD and FTA are working through a nonprofit intermediary to develop BTW projects in Baltimore, Chicago, Denver, Milwaukee, Philadelphia, St. Louis and Minneapolis-St. Paul. These projects have fostered partnerships among city and suburban private industry councils, community and employer representatives, regional transportation providers, and human services providers.

- ***Texas and Tennessee Demonstrations*** - The FTA is funding two vanpool demonstrations, one through Texas Southern University for Houston's Cuney Homes low income housing project; and another via University of Tennessee for a low income community in Knoxville, TN. These projects address the mobility and accessibility needs of

individuals (particularly transit dependent groups such as the disabled, low income, and elderly) living in the congested inner city areas with poor transit availability. Knoxville's program will provide access to low-cost vehicle financing and business start-up loans for persons and groups interested in starting transportation businesses.

NATIONAL TRANSIT GIS

FTA developed a national Transit Geographic Information System (GIS) incorporating personal computer technology to enable displays of inventory and other data relating to public transit facilities in the United States and information about highways, airports, marine ports, and freight and passenger rail systems. FTA plans to fund demonstrations of GIS applications to service planning. The FTA-funded GIS demonstration project in New York will be a test site for transit GIS policy and planning applications.

CONGESTION MANAGEMENT

■ ***Congestion Pricing*** - Congestion prices are road user charges that vary with the level of congestion (time and location of travel). By encouraging some trips to shift to off-peak, to higher occupancy vehicles, to uncongested routes, or by discouraging some trips altogether, congestion pricing promises reduction in congestion and savings in time and operating costs for private, transit and commercial vehicles. Other benefits include: improvement in air quality, reduction in energy consumption, and improvements in transit productivity. Congestion pricing also promises to generate large amounts of revenues that could be used to provide improved transportation alternatives or for other purposes. FTA is participating in two pioneering congestion pricing projects in the US:

State Route (SR) 91 Variable Toll Facility: The FHWA, FTA, and Caltrans are funding a monitoring and evaluation effort on the privately-funded express lanes on SR-91 in Orange County, CA. This variable toll facility opened in late 1995 and uses electronic equipment to implement variable tolls based on congestion levels. Initial traffic data collection has been completed.

The San Diego I-15 Pilot Demonstration: The FTA and FHWA are partners in a congestion pricing project on an existing HOV facility on I-15 in North San Diego. The project is co-sponsored by the San Diego Association of Governments in cooperation with the California Department of Transportation and has received the endorsement of the California State Legislature. This two phase project will allow solo drivers to use the carpool lanes for a fee. The project has begun with the assessment of I-15 use, traffic engineering considerations, origination and destination data, and estimates of revenue, traffic and other impacts of introducing prices for solo drivers and transit expansion. The second phase will demonstrate the implementation of one or more automated toll collection mechanisms to control HOV lane access.

■ ***Operational Action Mobility Improvement Program*** - The FTA/FHWA Joint Operational Action Program promotes the development and adoption of innovative transit services and transportation management techniques by regional jurisdictions and local communities, in partnership with private interests. The program promotes solutions that use existing technology, require low capital investment, and can be implemented quickly. FTA and FHWA have funded nearly two dozen projects in 1991 and 1992. Selected projects emphasized intelligent vehicle highway systems (IVHS), as well as low cost, innovative techniques for improving congestion and air quality problems in urbanized areas. The Volpe Center is evaluating these projects, including site-specific factors that influence the results of these projects and transferability of experience to other urbanized areas.

TCRP PROJECT IMPLEMENTATION

FTA created the Transit Cooperative Research Program (TCRP) under authority of the ISTEA. The cooperating organizations in the program are the FTA; the Transportation Research Board (TRB), which serves as overall program manager; and the Transit Development Corporation, Inc., a nonprofit educational and research organization established by the American Public Transit Association (APTA).

TCRP's mission is to promote and research and disseminate findings to improve the practice and performance of public transportation. TCRP supports research projects that focus on high priority issues with a reasonably high expectation of producing successful results and synthesis studies of specific topics, summarizing industry experience for practitioner's use. The program also provides for legal studies, rapid response studies, and IDEA investigations.

FTA will be working with TRB to implement the results from the TCRP research as demonstrations or pilots. FTA has worked together with TRB to develop procedures for operational implementation of research projects under TCRP. The testing and demonstration activities will produce deployment of TCRP research activities throughout the transit industry.

SBIR PROGRAM

The Small Business Innovations Research (SBIR) Program promotes the development of small research and technology development firms. DOT established its current SBIR program under the 1992 Small Business Research and Development Enhancement Act. Each operating administration sets aside a minimum of 1.5 percent of its extramural budget for research and development to support this program. FTA contributes funds to transit research. Small businesses are solicited to submit research proposal that address high priority requirements of the DOT.

For more information on these programs, contact:

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TRANSIT SERVICE AND MANAGEMENT INNOVATION PROGRAM